Notice of Allowability	Application No.	Applicant(s)	
	10/753,947	SIEGEL, STEPHEN B.	
	Examiner	Art Unit	
	Marianne L. Padgett	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *4/12/2006, 7/19/2006 & 10/10/2006*.

2. ☒ The allowed claim(s) is/are *1-4,13,16,18-20,27,33 and 37-41*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 4/12/2006
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *20070118* .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Thomas Tolpin on 1/18/2007.

In the claims:

In claim 1, lines 25-26 replace "a variable...panel;" with --a heat sink fixed to the panel and a variable speed fan; --.

In claim 13, line 3 change "chips" 2 -- assemblies --.

In the specification:

On page 8, third full paragraph (as amended 10/10/2006), on line 5, insert -- gas -- after "oxygen".

2. The following is an examiner's statement of reasons for allowance: applicants' amendments have corrected the drawings with replacement sheet 3/14 of figure 4, submitted 7/19/2006; removed 112 problems & otherwise clarified claim language and intent; as well as combining claim limitations from both sets of independent claims previously in the case, so as to provide a UV curing process & apparatus therefore, which is sufficiently differentiated from previously applied prior art, as well as any art found during the search/update. It is noted that while the references discussed in the previous actions, Itou, Ostler et al. (652), Controis et al. (701), Kennedy et al. (711), Malinen et al. & Owen et al. (146), individually or as a group have teachings that make it clear that temperature needs to

be controlled for effective LED use, wavelength control &/or intensity control, with various teachings concerning LED arrangement, heat dissipation, heat sinks and/or fans being useful therefore, none individually or in combination provide for the now claimed overall process or means to provide intensity control for the UV curing operation, when considered with the primary references of Young et al. (6,561,640) or Biegelsen et al. (6,536,889), which are directed to a suitable multi-wavelength curing process with only generic LED disclosure, especially when it is noted that the combination of means of control are considered with a variable speed fan, whose use/capability/means is now required to include adjustment to control temperature &/or intensity of the LED in order to effect the constant output thereof. It is also noted, that while the combined use of two different UV wavelength LEDs plus visible light LED assemblies in the multiple rows of an array, adds to the overall novelty as combined with the control during curing, the basic use of visible light LED assemblies to indicate operational status of LED devices, was clearly shown to be known in Dowling et al. (2002/0074559 A1) in [0045], as discussed in the last action (3/20/2006, paragraph bridging pages 9-10), where that reference clearly taught that their devices could also be used for UV curing of inks or epoxies, etc. ([0064], previously cited), contrary to applicant's assertions on page 16 of their remarks of 10/10/2006.

Other art interest for teachings concerning UV curing with LED arrays include: Waluszko (2006/0237658 A1); Scott et al. (2006/0245187 A1); Takabayashi et al. (7,080,900 B2); Vosahlo (2006/0230969 A1); Mills et al. (2006/0192829 A1); & Ollett et al. (6,880,954 B2), where only the last two are clearly prior art, however none of these have the claimed control means and process used during their curing, although Ollett et al. does detail a different cooling system for their LEDs. The copending patent to Siegel (7,137,696 B2), while having method claims which include limitations concerning cooling to achieve constant intensity, are more generic with respect to this part of their process and lack presently claimed combination of details required in the process of this case.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne L. Padgett whose telephone number is (571) 272-1425. The examiner can normally be reached on M-F from about 8:30 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks, can be reached at (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MLP/dictation software

1/18/2007

MARIANNE PADGETT
PRIMARY EXAMINER